

ACCELERATE your vision



Argonne **Leadership**
Computing Facility

TAKING INDUSTRY SOLUTIONS TO PETASCALE HEIGHTS

When you collaborate with the ALCF, your project team will have access to a full range of services and support. Our teams offer expertise in novel computational methods and algorithms, application porting, performance tuning and scaling, petascale system management, and high-performance analysis and visualization.



● APPLY FOR TIME

As a user facility for open science, any researcher that requires large-scale computing resources can submit a proposal for time on Mira to run programs for their experiments. Allocation awards are large – on the order of millions of core-hours – and are selected by a peer review process.



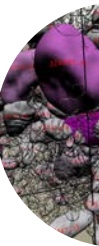
CUTTING-EDGE SUPERCOMPUTING KEEPS YOU COMPETITIVE

A key driver of our nation's future economic prosperity lies in its creative talent — the scientists, researchers, and engineers working within our companies, government labs, and universities. Our R&D centers are where innovation, not price, provides the competitive edge in an increasingly globalized economy.

U.S. Department of Energy user facilities offer some of the world's most capable resources available to researchers. The ALCF has the high-performance computing resources and expertise to enable major research breakthroughs leading to transformative products and technologies — and a secure foothold in today's global market.

"We encourage our users to envision their research well beyond the here and now. With resources like Mira and our experience and expertise, we essentially offer a time machine for their science."

— Paul Messina, ALCF Science Director





BREAKTHROUGH ADVANCES

We proudly work with a number of companies and institutions in pursuit of high-impact scientific and engineering breakthroughs.

NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY – Better Concrete

NIST is modeling concrete flows to establish industry standards for more workable and environmentally friendly concrete.

GE GLOBAL RESEARCH – More Efficient Jet Engines and Turbines

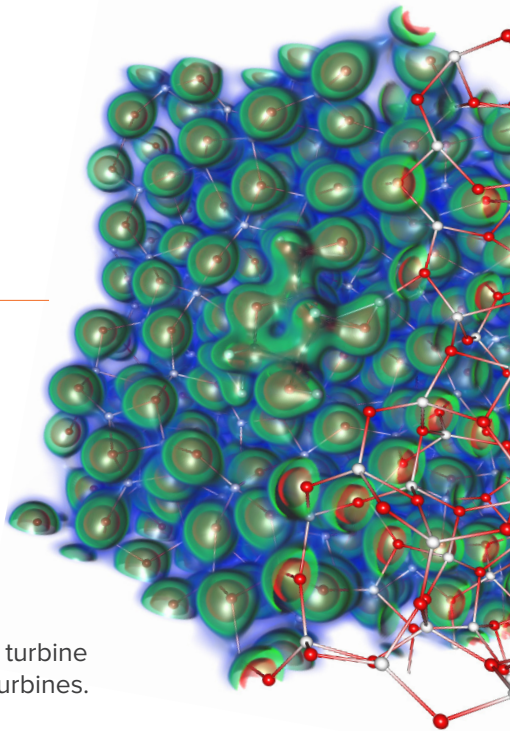
GE is studying the complex flow of air in jet exhaust nozzle and wind turbine airfoils to build more fuel-efficient and quieter jet engines and wind turbines.

BOEING AND NEW TECHNOLOGIES AND SERVICES – Improved Aircraft Design

Boeing and NTS modeled airflows over tandem cylinders as a model for the components of aircraft landing, to better understand and calculate the noise generated and improve future designs.

SHELL – New Avenues for Chemical Production

Shell is building molecular models to compare with experimental results to better understand the conversion of natural gas to a number of valuable chemicals.



REDUCE RISKS SPEED TIME TO MARKET

Staying competitive and innovative requires advanced computing capabilities that are often prohibitively complex or expensive to maintain in-house. The ALCF offers industry the same powerful tools that are propelling our nation's scientific and engineering breakthroughs in energy and the environment.

Whether for small-scale modeling and simulation or large-scale, computationally intensive projects, the ALCF can meet a wide range of computational needs to give your organization's R&D researchers a competitive edge.



industry@alcf.anl.gov



Access our world-class facility

The Argonne Leadership Computing Facility provides the science and engineering research community with some of the world's most powerful computing and supercomputing resources. The ALCF is a Department of Energy user facility within Argonne National Laboratory, which is located just outside of Chicago.

Accelerate your breakthroughs

Faster and more sophisticated computers mean better simulations and more accurate predictions. Mira, our 10-petaflops Blue Gene/Q supercomputer, will help researchers to tackle more complex problems and create more robust models of everything from jet engines to the human body.

Apply for time on our resources

Virtually any process or problem can be advanced with precision and speed using advanced computing at the ALCF. As a national user facility dedicated to open science, any researcher whose project requires access to large-scale computational resources may apply for time on Mira.



CONTACT

Our Industry Engagement Team welcomes your inquiries.



industry@alcf.anl.gov

866-508-9181

alcf.anl.gov/industry



Argonne National Laboratory is a multi-disciplinary research center with more than 200 research projects and nearly 3,200 employees from 60 nations. It is one of the U.S. Department of Energy's oldest and largest laboratories. Argonne's mission is to apply a unique mix of world-class science, engineering, and user facilities to deliver innovative research and technologies.



Argonne National Laboratory is a U.S. Department of Energy laboratory managed by UChicago Argonne, LLC.

alcf-industry-2013

